

## REMARKS

### Summary of Examiner Interview

This Reply is accompanied by an interview summary.

### Double Patenting Rejection

Applicant acknowledges the examiner's withdrawing the obviousness-type double patenting rejections.

### 35 U.S.C. 112

The examiner rejected claims 1 and 8-11 under 35 U.S.C. 112, first paragraph, due to alleged lack on enablement. The examiner states:

**Claims 1 and 8-11 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a specific interconnect to attach a fuel cartridge to a portable powered electronic device that contains a fuel cell, does not reasonably provide enablement for an "egress port configured to attach to a fuel cell". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. As recited in the claims the egress port is attached to a fuel cell, however the instant specification does not discuss this feature. In fact the instant specification only discusses connecting the egress port to a specific interconnect (for example as shown in figure 8), but it does not provide enablement for the egress port being connected to a fuel cell. Furthermore as recited instant claim 1 recites that the egress port can be connected to any fuel cell at any location which is also not enabled by the instant specification.**

Without conceding to the Examiner's position, Applicant has amended independent claim 1 to recite "the fuel egress port configured to attach to a fuel cell via an interconnect interposed between the fuel egress port and the fuel cell to deliver an oxidizable vapor to the fuel cell through the interconnect." Applicant believes that the foregoing amendments to the independent claim 1 overcome the rejection under 35 U.S.C. 112, first paragraph.

The examiner also rejected claims 12 and 14-17 under 35 U.S.C. 112, first paragraph, due to alleged lack on enablement. The examiner states:

Claims 12 and 14-17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a specific interconnect to attach a fuel cartridge to a portable powered electronic device that contains a fuel cell, does not reasonably provide enablement for "a fuel cartridge, configured to deliver an oxidizable vapor to a fuel cell". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. As recited in the claims the cartridge is configured to deliver an oxidizable vapor to a fuel cell, however the instant specification does not discuss this feature. In fact the instant specification only discusses connecting the fuel cartridge to a specific interconnect (for example as shown in figure 8), but it does not provide enablement for the cartridge configured to deliver an oxidizable vapor to a fuel cell. Furthermore as recited instant claim 8 recites that the cartridge can be configured to deliver an oxidizable vapor to any fuel cell at any location which is also not enabled by the instant specification.

Without conceding to the Examiner's position, Applicant has amended independent claim 12 to recite "a fuel egress port supported by the housing configured to pass fuel in vapor phase from the housing to a fuel cell via an interconnect interposed between the fuel egress port and the fuel cell." Applicant believes that the foregoing amendments to the independent claim 12 overcome the rejection under 35 U.S.C. 112, first paragraph.

The examiner rejected claims 1, 8-12 and 14-17 under 35 U.S.C. 112, second paragraph as allegedly being indefinite. The examiner states:

Claim 1, recites "the cartridge having the fuel egress port configured to attach to a fuel cell". It is unclear how the fuel egress port is "configured" to attach to a fuel cell. What is the structural feature that configures the fuel egress port to be able to attach to a fuel cell? Can the fuel egress port be attached to any fuel cell? How is the fuel egress port attached to the fuel cell? The Examiner has looked to the instant specification for guidance regarding the recitation of this configuration and has found no guidance. Therefore amended claim 1 and its dependent claims are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12, recites "a fuel cartridge, configured to deliver an oxidizable vapor to a fuel cell". It is unclear how the fuel cartridge is "configured" to deliver an oxidizable vapor to a fuel cell. What is the structural feature that configures the fuel cartridge to be able to deliver an oxidizable vapor to a fuel cell? Can the fuel cartridge deliver an oxidizable vapor to any fuel cell? How does the fuel cartridge deliver an oxidizable vapor to the fuel cell? The Examiner has looked to the instant specification for guidance regarding the recitation of this configuration and has found no guidance. Therefore amended claim 12 and its dependent claims are

**indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Applicant believes that the foregoing amendments to the independent claims 1 and 12 overcome the rejection under 35 U.S.C. 112, second paragraph.

The examiner further states:

**Claim 12 further recites "the fuel that exists the housing as the vapor phase". It is unclear how the fuel "exists" the housing. It is clear that fuel can exist, but it is not clear how it "exists" the housing.**

Applicant has amended claim 12 correct the typographic error and recite, *inter alia*, "the fuel that exits the housing as the vapor phase."

35 U.S.C. 102

The examiner rejected claims 1 and 8-11 under 35 U.S.C. 102(b), as allegedly anticipated by U.S. Patent No. 4,684,786 ("Mann"). The examiner states:

**As seen in the figures 1, Mann teaches a fuel cartridge 12 comprising a housing 17, defining an interior space which confines liquid oxidizable fuel, a fuel egress port 22 or 40 supported by the housing, which provides egress of fuel from the interior space of the housing to an external space of the housing (i.e. the fuel exits the housing), and a resistive heating element 26 or 70 disposed in the fuel egress port, wherein the resistive heating element is a wire that is disposed in thermal communication with the interior of the cartridge and it spaces a vapor portion of the cartridge (i.e. head space) (whole document).**

Independent claim 1, as amended, recites "the fuel egress port configured to attach to a fuel cell via an interconnect interposed between the fuel egress port and the fuel cell to deliver an oxidizable vapor to the fuel cell through the interconnect." Mann does not describe at least the foregoing feature of amended claim 1. What the examiner construes as a fuel cartridge in Mann is a fuel tank of a motor vehicle. Because Mann does not describe a fuel cartridge that delivers an oxidizable vapor to a fuel cell, Mann would also not have made obvious an interconnect as recited in amended claim 1. Claim 1 is therefore patentable over Mann for at least the foregoing reasons. Claims 8-11 are patentable for at least the reasons for which claim 1 is patentable.

35 U.S.C. 103(a)

The examiner also rejected claim 1 and 8-11 as allegedly being unpatentable over Mann and further in view of U.S. Published Application 2005/0031522 ("Delaney).

Applicant contends that Delaney also does not describe or suggest "an interconnect interposed between the fuel egress port and the fuel cell," as recited in amended claim 1 and therefore fails to cure the above noted deficiencies of Mann. Claim 1 is patentable over Mann and Delaney for at least that reason. Claims 8-11 depend from claim 1 and are patentable at least for the reasons claim 1 is patentable.

The examiner rejected claims 12, 14, 16 and 17 as being allegedly unpatentable over U.S. patent 6,506,513 ("Yonetsu") in view of GB 2,263,501 ("Tsoi-Hei").

The examiner also rejected claim 15 under 35 USC 103(a) as being allegedly unpatentable over Yonetsu in view of Tsoi-Hei and further in view of Gore.

With respect to claim 12, the examiner states:

As seen in the figures, Yonetsu teaches a fuel cartridge, that is prismatic in shape, having a housing 1, a fuel egress port 3 that contains a heat producing element "a" (i.e. porous carbon vaporizing plate, Figure 2, column 13, lines 16-20), ...

Furthermore in column 4, line 50 Yonetsu clearly discloses that the pathway 3 is filled with a porous material through which the liquid fuel permeates (also called a fine tube that performs capillary function as admitted to by Applicants in the Remarks field 11/4/09) and the porous material is in fluid communication and fluidly connected to the liquid fuel holding material called a receiver 5, where the fuel is vaporized before entering the unit cell. Therefore the entire path that the fuel flows through before it is vaporized at the vaporization plate "a" is considered the "egress port" and since the receiver 5 is completely disposed on the vaporization plate "a" the vaporization plate "a" is disposed in the path of the fuel being supplied and is therefore "disposed in the fuel egress port" as recited in instant claim 1.

Further, in response to Applicant's arguments filed on May 4, 2011, the examiner states:

Regarding the Yonetsu reference applicants state that "the cartridge recited in Applicant's claims is a separate entity from a fuel cell".

**Said argument is not commensurate with the scope of the claims and also contradicts the intended use recitation that applicants have added to the preamble of amended claim 12. There is nothing in the claims that prohibits the cartridge from being in the same unit as the fuel cell and applicants have chosen to use open claim language and therefore more can be present in the prior art and still read on the claims as recited. Applicants also state that Yonetsu teaches away from a heating element. This statement is not well take because it is quite clear that Yonetsu teaches a "vaporization plate" which applicants have admitted to, the purpose of said vaporization plate is to heat the fuel to cause it to vaporize, so therefore the combination as provided does not teach away as applicants submit.**

Without conceding to the examiner's position, Applicant has amended claim 12 to further clarify that the cartridge recited in Applicant's claims is separate from a fuel cell. Claim 12, as amended, recites "a fuel egress port supported by the housing configured to pass fuel in vapor phase from the housing to a fuel cell via an interconnect interposed between the fuel egress port and the fuel cell." Even under the examiner's construction that the cartridge can be in the same unit as the fuel cell (which the Applicant does not concede to be accurate), Yonetsu would not have made obvious an interconnect as recited in amended claim 12. Tsoi Hei also does not describe such an interconnect and therefore claim 12 is patentable over Yonetsu and Tsoi Hei for at least the foregoing reasons.

Claims 14, 15, 16, and 17 properly depend from claim 12 and are therefore patentable for at least the reasons for which claim 12 is patentable. Gore also does not describe an interconnect as recited in amended claim 12 and therefore fails to detract from the patentability of claim 15.

#### Rejoinder of Withdrawn Claims

Claim 1, as amended, is believed to be in condition for allowance. Claim 1 remains a generic claim that covers all of the species encompassed by withdrawn claims 2-7. Therefore, Claims 2-7, which depend from claim 1 are also in condition for allowance and therefore rejoinder of claims 2-7 is requested.

Applicant has canceled withdrawn claims 18-22.

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No fee is believed to be due. Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 08935-0299001.

Respectfully submitted,

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